

## REMARKS

Applicants filed an amendment after final under 37 C.F.R. § 1.116 on November 22, 2006. The amendment after final contained the same amendments as above, and many of the same arguments as are found below. In the Final Office Action, the Patent Office expressly set forth that the claims were not allowable because the claims did not contain a "'matrix multiplication' limitation" (page 3 of the Final Office Action). Without consenting to this rejection, but responsive thereto, Applicants requested amendment to both of the independent claims, claims 7 and 8, to include a requirement for "matrix multiplication", thereby complying with the requirement expressly set forth in the Final Office Action. However, in an advisory action mailed on December 19, 2006, the Patent Office declined to enter the amendments, arguing that the amendments would have raised new issues that would have required further consideration and/or search. Specifically, the Patent Office indicated that the amendments to claims 7 and 8 requiring "matrix multiplication" require further consideration and/or search. The Patent Office also indicated that the amendments were not deemed to place the application in better form for appeal. Without consenting to the position taken by the Patent Office, but responsive thereto, Applicants are filing this RCE.

Claims 3 and 11 were previously cancelled without prejudice and claims 1, 2, 4-6, 10, 12-15, and 23-28 were previously withdrawn. Claims 7-9 and 16-22 remain pending in the application, for a total of ten (10) pending claims. Claims 7 and 8 are independent claims, while claims 9 and 16-22 are dependent claims. Applicant has currently amended claims 7 and 8. Applicant submits that no new matter has been added by these amendments. As examples, limitations added to claims 7 and 8 are supported by the original specification including on the bottom half of page 11 (paragraph 0042 of the published application, 2003/0158798). Other support may also be found for the claim amendments.

In the Final Office Action, the Patent Office rejected all of the pending claims (claims 7-9 and 16-22) under 35 U.S.C. § 103 as being unpatentable (obvious) over Tawara *et al.* (US 2003/0050876). Specifically, the Patent Office expressly set forth

that the claims were not allowable because the claims did not contain a "matrix multiplication' limitation" (page 3 of the office action). Without consenting to this rejection, but responsive thereto, Applicants have amended both of the independent claims, claims 7 and 8, to include a requirement for "matrix multiplication", thereby complying with the requirement expressly set forth in the Final Office Action.

Applicants submit that Tawara does not obviate the current claims because Tawara does not teach or suggest all of the claim limitations of any of the pending claims. Specifically, Applicants submit that Tawara does not teach or suggest, for example, "at least one of debiting and crediting a plurality of ledger balances, through matrix multiplication, using a posting matrix containing 0, 1, and -1 values" as recited in claim 7, or "posting the derived accounting information to at least one ledger balance for the account wherein the posting is performed utilizing a posting matrix, through matrix multiplication" as recited in claim 8.

The differences between the systems and methods that Tawara concerns and the present invention is much more significant than an obvious design choice or the simple selection of different numbers to represent different mathematical operations. In Tawara, the numbers 1 and 2 serve as a flag to trigger execution of certain code. For example, as recited in paragraph 0075 of Tawara, "[i]f the `credit/debit section=1`, then the retrieved `account title code` is stored as a `debit account title` of the accounting information. If the `credit/debit section=2`, then it is stored as a `credit account title`." In contrast, in the current application, as recited in paragraph 0042, as an example, "[u]pdates are performed through matrix multiplication in which data of the fields of the transaction event are multiplied by the posting matrix." Thus, Applicants submit that Tawara does not teach or suggest "matrix multiplication" as currently recited in each of the independent claims. Nor does Tawara teach or suggest the limitations of the current independent claims using different nomenclature, for example.

Applicants further submit that Tawara's use of numbers as flags teaches away from the use of matrix multiplication. Specifically, Tawara teaches that flags should be used, and does not mention that using a posting matrix or matrix operations such as

matrix multiplication would be options to consider. In addition, to the extent that Tawara teaches that using flags is the accepted wisdom, the use of a matrix multiplication in the current claims is contrary to such accepted wisdom, which is further evidence of non-obviousness. Moreover, if Tawara were to be modified to arrive at the present invention, the use of a matrix multiplication in Tawara would impermissibly change the principle of operation of Tawara from the use of flags as indicators to the use of a matrix to perform matrix multiplication operations. And furthermore, the system of Tawara would not work satisfactorily for its stated purpose if Tawara were to be modified to use its flag values of 1 and 2 for matrix multiplication since the flag values of 2 would change the value of the output if matrix multiplication operations were performed.

Further, Applicants submit that no motivation has been identified, or is apparent, either from Tawara or from the knowledge of a person of ordinary skill in the art to modify Tawara to use matrix multiplication rather than a selection of flags. For example, Tawara does not suggest that some advantage or expected benefit would result from the use of matrix multiplication rather than a selection of flags. And no alternative motivation has been identified to establish a prima facie case of obviousness.

Thus, Applicants submit that none of the references cited to date teach or suggest matrix multiplication as recited in the current independent claims, and that consequently, the prior art of record does not teach or suggest all of the claim limitations of any of the currently pending claims. Further, Applicants submit that a person of ordinary skill in the art, at the time the invention was made, could not reasonably have been expected to modify the cited prior art, or combine the cited prior art with other teachings, to arrive at the present invention. Accordingly, Applicants respectfully request reconsideration of the application and allowance of all pending claims. Should the Examiner wish to discuss any of the above in greater detail or deem that further amendments should be made to improve the form of the claims, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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**CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)**

I hereby certify that this document (and any referred to as being attached or enclosed) is on **January 8, 2007**, being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any trademark registration issued thereon.

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